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(72)Inventor : FUJIIHASHI TSUYOSHI

(54) FILTRATION DEVICE AND CLEANING METHOD THEREFOR

(57)Abstract:

PROBLEM TO BE SOLVED: To effectively remove a contaminant sticking to the surface of a film, and also prevent the contaminant from re-sticking to the film and reduce the amount of a drained liquid by circulating a liquid in a circulatory path while maintaining a high pressure state on the permeation side of the film, with the help of a backward washing means during the backward washing process.

SOLUTION: During the backward washing process, a flow path switching valve 7 is changed over to a backward washing side. Next, a high pressure air is allowed to flow into a backward washing tank 5 by changing over a switching valve 6 to cause a backward washing liquid accumulated in the backward washing tank 5 to flow back into a hollow fiber membrane module 1h from a drainage 4. In addition, the backward washing process is performed all at once, and a drain valve 14 is kept open until an inflow path 2 is emptied and the backward washing liquid is completely drained. After that, the drain valve 14 is closed, and the switching valve 6 is turned to the backward washing side, and further, the pressure on the permeation side of the film is kept at a high level by the high pressure air. Consequently, the circulating backward washing liquid cannot permeate through the film because the permeation side of the film is at a high pressure. Besides, no contaminant which is peeled off re-sticks to the film, and the contaminant sticking to the surface of the film is removed by the circulating liquid.

